

Message

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]
Sent: 7/26/2018 9:36:35 PM
To: Pagano (US), Peter A [peter.a.pagano@boeing.com]
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Dear Pete –

How does 2-3pm eastern time on Thursday, August 16 work for you?

Thanks
Bill

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Thursday, July 26, 2018 3:49 PM
To: Charmley, William <charmley.william@epa.gov>
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Bill

Thanks for the message. Glad to set up a call. The afternoon of the 8th works or the morning of the 9th. May 15 and 16 are fairly open for me too. Please let me know what's convenient for you.

All the best,

Peter A. Pagano
Director, Environment
The Boeing Company
703-414-6486
Email: peter.a.pagano@boeing.com

From: Charmley, William [mailto:charmley.william@epa.gov]
Sent: Wednesday, July 25, 2018 6:24 AM
To: Pagano (US), Peter A <peter.a.pagano@boeing.com>
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Dear Pete

Thanks for this outreach. I did catch up with Ben on this topic, but I would like to discuss with you sometime in the next few weeks. One of the questions I have is more background on the Aerospace Industries Association.

What is this Association, who are typical members, and to what extent are the associations views similar or different to Boeings?

I am in the office on and off this week and next week, but then back full time for the week of August 6, and most of the rest of August.

Do you have some open times the week of August 6 or the week of August 13 where we could schedule a 30 minute call?

Best regards,
Bill

From: Pagano (US), Peter A [<mailto:peter.a.pagano@boeing.com>]
Sent: Monday, July 23, 2018 3:19 PM
To: Charmley, William <charmley.william@epa.gov>
Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Bill

FYI Hope your summer is going well. Just wanted to make sure you were aware of this meeting request...I spoke to Ben Hengst and I believe he mentioned to you but I would be happy to discuss and provide additional information.

All the best,

Peter A. Pagano
Director, Environment
The Boeing Company
703-414-6486
Email: peter.a.pagano@boeing.com

From: Pagano (US), Peter A
Sent: Monday, July 23, 2018 3:17 PM
To: 'Rakosnik, Delaney@epa.gov' <Rakosnik.Delaney@epa.gov>
Cc: 'Lewis, Josh' <Lewis.Josh@epa.gov>; 'Hengst, Benjamin' <Hengst.Benjamin@epa.gov>
Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

1. ICAO Background and Regulatory Policy Development Process
2. Industry Engagement with ICAO and its Environment Committee (CAEP)
3. nvPM
4. NOx
5. CO2

Sincerely,

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6

Email: peter.a.pagano@boeing.com

Message

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]
Sent: 8/15/2018 5:55:27 PM
To: Pagano (US), Peter A [peter.a.pagano@boeing.com]
Subject: RE: Background for tomorrow

Pete –

Thanks for sending this. For tomorrow I would like to walk through the agenda that was provided to AA Wehrum for the industry meeting on September 20. We have an aircraft CO2 rule checkin/update with AA Wehrum next week, and that may be our only time to talk with him on aircraft topics before September 20, so it will be helpful for me if we can discuss the nvPM and NOx topics in addition to CO2 so we can make sure we have AA Wehrum prepared for the September meeting.

Thanks
Bill

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Wednesday, August 15, 2018 1:01 PM
To: Charmley, William <charmley.william@epa.gov>
Subject: Background for tomorrow

Hi Bill

Thanks for the thoughtful discussion yesterday. We are scheduled for a call tomorrow at 2pm and I will call you at your 4862 number...I know a particular topic you were interested in is background on the Aerospace Industries Association ...I thought I would send you a couple of things in advance...this link will take you to a membership list which is comprised of manufacturers and suppliers including The Boeing Company: <https://www.aia-aerospace.org/membership/our-members/>

The attachment is the Association statement on the ICAO standard they put out in Feb 2016...

Talk to you tomorrow.

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6

Email: peter.a.pagano@boeing.com

Message

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]
Sent: 9/20/2018 3:42:59 PM
To: Michael Samulski (samulski.michael@epa.gov) [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Mueller, John [mueller.john@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]
Subject: FW: Final slides PDF for today
Attachments: AIA-Boeing-GE EPA ICAO Slides Final 092018.pdf

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Thursday, September 20, 2018 10:14 AM
To: Charmley, William <charmley.william@epa.gov>
Subject: Fwd: Final slides PDF for today

Bill
FYI. Slides for meeting. Talk soon.
Pete

Sent from my iPhone

Begin forwarded message:

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From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]
Sent: 9/20/2018 2:41:51 PM
To: Gonzalez, Gail [Gonzalez.Gail@epa.gov]
Subject: FW: Final slides PDF for today
Attachments: AIA-Boeing-GE EPA ICAO Slides Final 092018.pdf; ATT00001.htm

Gail –
I couldn't get it to print –

Can you try to print 7 color copies of the attached and bring to C174

Thanks
Bill

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Thursday, September 20, 2018 10:14 AM
To: Charmley, William <charmley.william@epa.gov>
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Appointment

From: Charmley, William [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FB1828FB00AF42FFB68B9E0A71626D95-CHARMLEY, WILLIAM]
Sent: 7/26/2018 9:31:59 PM
To: Charmley, William [charmley.william@epa.gov]; Pagano (US), Peter A [peter.a.pagano@boeing.com]
Subject: Call with Pete Pagano, Boeing
Location: Pete will call Bill at Ex. 6
Start: 8/16/2018 6:00:00 PM
End: 8/16/2018 7:00:00 PM
Show Time As: Busy

Required Attendees: Pagano (US), Peter A

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Friday, July 27, 2018 8:52 AM
To: Charmley, William <charmley.william@epa.gov>
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Let's plan on that. August 16 at 2pm. Do you want to call me at the number below or do you have a number you would like me to use? Thanks and have a good weekend.

Peter A. Pagano
 Director, Environment
 The Boeing Company

Ex. 6

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Director, Environment
The Boeing Company

Ex. 6

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From: Pagano (US), Peter A
Sent: Monday, July 23, 2018 3:17 PM
To: 'Rakosnik.Delaney@epa.gov' <Rakosnik.Delaney@epa.gov>
Cc: 'Lewis, Josh' <Lewis.Josh@epa.gov>; 'Hengst, Benjamin' <Hengst.Benjamin@epa.gov>
Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

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Draft Agenda

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3. nvPM
4. NOx
5. CO2

Sincerely,

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6

Email: peter.a.pagano@boeing.com

Appointment

From: Wehrum, Bill [Wehrum.Bill@epa.gov]
Sent: 7/30/2018 7:51:09 PM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]
Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)
Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20
Location: WJC - N 5400 + Video with AA + Ex. 6
Start: 9/20/2018 2:30:00 PM
End: 9/20/2018 3:15:00 PM
Show Time As: Busy

Required Attendees: Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David
Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Bill Wehrum did not attend this meeting

TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



RE: Request for
Meeting with Assi...

Meeting participants (in person):

- Aerospace Industries Association: Leslie Riegle and David Hyde
- Boeing: Ted Austell, Pete Pagano, John Moloney, Dan Allyn, Sean Newsum
- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Message

From: Pagano (US), Peter A [peter.a.pagano@boeing.com]
Sent: 7/30/2018 11:13:44 AM
To: Rakosnik, Delaney [rakosnik.delaney@epa.gov]
CC: Lewis, Josh [Lewis.Josh@epa.gov]; Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Atkinson, Emily [Atkinson.Emily@epa.gov]
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

Thanks for the message. This is to confirm that the meeting time on Sept 20 will work on our end. We will be in touch to provide participant names closer to the meeting date. Please let me know what additional information you may need.

All the best

Pete Pagano

From: Rakosnik, Delaney <rakosnik.delaney@epa.gov>
Sent: Friday, July 27, 2018 12:31:07 PM
To: Pagano (US), Peter A
Cc: Lewis, Josh; Hengst, Benjamin; Atkinson, Emily
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Peter,

Bill Wehrum can accommodate a 45 min meeting on Sept 20th at 10am. How does that time work for your schedules?

Many thanks,

Delaney Rakosnik
 Staff Assistant
 Immediate Office of the Assistant Administrator
 Office of Air and Radiation, USEPA
 Room 5406A, 1200 Pennsylvania Avenue NW
 Washington, DC 20460
 Voice: 202-564-0935
 Email: rakosnik.delaney@epa.gov

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Monday, July 23, 2018 3:17 PM
To: Rakosnik, Delaney <rakosnik.delaney@epa.gov>
Cc: Lewis, Josh <Lewis.Josh@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which

includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

1. ICAO Background and Regulatory Policy Development Process
2. Industry Engagement with ICAO and its Environment Committee (CAEP)
3. nvPM
4. NO_x
5. CO₂

Sincerely,

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6

Email: peter.a.pagano@boeing.com

Message

From: Hengst, Benjamin [Hengst.Benjamin@epa.gov]
Sent: 7/23/2018 8:08:13 PM
To: Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]
CC: Grundler, Christopher [grundler.christopher@epa.gov]
Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

FYI

I imagine OAR will ask if OTAQ recommends taking the meeting, and I presume the answer is yes but let me know if not.

Thanks
 Ben

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Monday, July 23, 2018 3:17 PM
To: Rakosnik, Delaney <rakosnik.delaney@epa.gov>
Cc: Lewis, Josh <Lewis.Josh@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
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Sincerely,

Peter A. Pagano
 Director, Environment
 The Boeing Company

Ex. 6

Email: peter.a.pagano@boeing.com

Message

From: Ralph.lovinelli@faa.gov [Ralph.lovinelli@faa.gov]
Sent: 9/20/2018 3:59:41 PM
To: Charmley, William [charmley.william@epa.gov]
CC: kevin.welsh@faa.gov; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]
Subject: Re: Final slides PDF for today (aircraft industry meeting with EPA's Office of Air and Radiation)

Thank you Bill. I felt bad for Clint - it was a bit of drinking from a fire hose. Lots of issues thrown his way. Industry even snuck in supersonics at one point.

As a follow-up to industry's comment, I'd like to highlight that we (EPA+FAA) should discuss the nvPM number issue with our respective staff. Not sure if Clint picked up on the nuances mentioned by industry. Right now we are treating nvPM mass and number as a reporting requirement via an ICR because it is a "all pass" limit to match certified smoke levels. For the upcoming nvPM stringency, FAA would have to certify engines on a pass/fail basis against a regulatory level for both mass and number. So a creative discussion about how EPA (or FAA?) can have a nvPM number regulatory limit is needed between our agencies. I will t-up this issue with Mike and Bryan on our bi-weekly calls...

Thanks
 Ralph

On Sep 20, 2018, at 11:48 AM, Charmley, William <charmley.william@epa.gov> wrote:

Dear Kevin and Ralph –

Here is the material the aircraft stakeholders shared with EPA today. Ralph probably received a paper copy as well.

Ralph – thanks for traveling to the EPA offices to be part of the discussion today.

Thanks
 Bill

From: Pagano (US), Peter A [<mailto:peter.a.pagano@boeing.com>]
Sent: Thursday, September 20, 2018 10:14 AM
To: Charmley, William <charmley.william@epa.gov>
Subject: Fwd: Final slides PDF for today

Bill
 FYI. Slides for meeting. Talk soon.
 Pete

Sent from my iPhone

Begin forwarded message:

<AIA-Boeing-GE EPA ICAO Slides Final 092018.pdf>

Message

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Sent: 7/27/2018 12:51:32 PM
To: Charmley, William [charmley.william@epa.gov]
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Let's plan on that. August 16 at 2pm. Do you want to call me at the number below or do you have a number you would like me to use? Thanks and have a good weekend.

Peter A. Pagano
 Director, Environment
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To: Charmley, William [charmley.william@epa.gov]
Subject: Background for tomorrow
Attachments: AIAstatementsupportICAOstandard.pdf

Hi Bill

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Director, Environment
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Ex. 6

Email: peter.a.pagano@boeing.com



FOR IMMEDIATE RELEASE

NEWS

February 9, 2015

AIA Endorses First Global CO₂ Standard To Reduce Aircraft Emissions

International Agreement Establishes First Aviation CO₂ Emissions Standard

Arlington, Va. — The Aerospace Industries Association welcomes the ambitious new CO₂ emissions standard for commercial airplanes proposed by the International Civil Aviation Organization (ICAO) Committee on Aviation Environmental Protection February 8, 2016, in Montreal, Canada. The agreement on the ICAO “CO₂ Standard” is the result of work by a task force of experts from governments and observers and will be endorsed by the ICAO Council later this year.

“This is a historic accomplishment resulting from six years of committed effort by manufacturers, operators, governments and non-governmental organizations across the globe,” said AIA President and CEO David F. Melcher. “This agreement will further solidify our strong record of fuel efficiency and focus on the environment and we urge full adoption by the U.S. government.”

“The goal of this certification standard is to reduce CO₂ emissions from aviation by encouraging the integration of fuel efficient technologies into aircraft design and development, and is part of a broader set of actions aimed at tackling aviation’s climate change impact,” said AIA Director of Environmental Policy Leslie Riegle. “This includes improvements in flight operations, deployment of biofuels and the reduction of noise and other emissions, together with the development of a global market-based measure for aviation to be agreed at the ICAO .General Assembly in October 2016”

The new standard will apply to all new civil aircraft designs launched after 2020, with a three-year delay for aircraft with fewer than 20 seats; and to in-production aircraft from 2023 onwards. There would be a production cut-off for noncompliant aircraft in 2028. The agreement guarantees that manufacturers will continue to design and develop aircraft that will meet this ambitious standard in the future.

“This builds on aviation’s long and consistent track record of continuous improvements in fuel efficiency,” Melcher said. “For example, today’s aircraft are more than 70 percent more efficient than the industry’s first commercial jets.”

After final agreement at the ICAO Council meeting in fall of 2016, the U.S. government will have to finalize its rulemaking on these emissions. The agreement at ICAO should be

adopted in its entirety by the United States in order to avoid introducing market distortions across the global industry.

New aircraft technologies are one important pillar of an assortment of measures that the aerospace industry and governments are using to reduce aviation CO₂ emissions. This agreement will support ongoing industry commitments including a 1.5 percent annual fleet fuel efficiency improvement, carbon neutral growth from 2020 and halving CO₂ emissions relative to 2005 by 2050.

#

CONTACT: Keith Mordoff
(703) 358-1075 office
(240) 338-1255 mobile
keith.mordoff@aia-aerospace.org

-AIA-
News Release 2
2.9.16

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1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209 (703) 358-1000 www.aia-aerospace.org

Founded in 1919 shortly after the birth of flight, the Aerospace Industries Association is the most authoritative and influential trade association representing the nation's leading manufacturers and suppliers of civil, military and business aircraft, helicopters, unmanned aircraft systems, space systems, aircraft engines, homeland and cybersecurity systems, materiel and related components, equipment services and information technology.

Appointment

From: Rakosnik, Delaney [rakosnik.delaney@epa.gov]
Sent: 9/14/2018 1:19:56 PM
To: Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
Subject: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)
Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20
Location: WJC - N 5400 + Video with AA Ex. 6
Start: 9/20/2018 2:00:00 PM
End: 9/20/2018 2:45:00 PM
Show Time As: Tentative

Required Attendees: Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David

TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



RE: Request for Meeting with Assi...

Meeting participants (in person):

- Aerospace Industries Association: Leslie Riegle and David Hyde
- Boeing: Ted Austell, Pete Pagano, John Moloney, Dan Allyn, Sean Newsum
- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Appointment

From: Wehrum, Bill [Wehrum.Bill@epa.gov]
Sent: 7/30/2018 7:51:09 PM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]

Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)

Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Location: WJC - N 5400 + Video with AA + Ex. 6

Start: 9/20/2018 2:30:00 PM

End: 9/20/2018 3:15:00 PM

Show Time As: Busy

Required Attendees: Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David
Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Appointment

From: Rakosnik, Delaney [rakosnik.delaney@epa.gov]
Sent: 9/17/2018 6:08:20 PM
To: Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
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TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



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- Boeing: Ted Austell, Pete Pagano, John Moloney, Dan Allyn, Sean Newsum
- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Appointment

From: Atkinson, Emily [Atkinson.Emily@epa.gov]
Sent: 9/21/2018 2:17:00 PM
To: Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]

Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)

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Show Time As: Tentative

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Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Bill Wehrum did not attend this meeting

TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



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- Boeing: Ted Austell, Pete Pagano, John Moloney, Dan Allyn, Sean Newsum
- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Appointment

From: Wehrum, Bill [Wehrum.Bill@epa.gov]
Sent: 9/18/2018 1:16:31 PM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]

Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)

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Location: WJC - N 5400 + Video with AA + Personal Matters / Ex. 6

Start: 9/20/2018 2:30:00 PM

End: 9/20/2018 3:15:00 PM

Show Time As: Busy

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Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Message

From: Hengst, Benjamin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C414E2BF04A246BB987D88498EEFF06-HENGST, BENJAMIN]
Sent: 7/23/2018 8:08:13 PM
To: William Charmley (charmley.william@epa.gov) [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]
CC: Grundler, Christopher [grundler.christopher@epa.gov]
Subject: FW: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

FYI

I imagine OAR will ask if OTAQ recommends taking the meeting, and I presume the answer is yes but let me know if not.

Thanks
 Ben

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Monday, July 23, 2018 3:17 PM
To: Rakosnik, Delaney <rakosnik.delaney@epa.gov>
Cc: Lewis, Josh <Lewis.Josh@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Delaney

The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

1. ICAO Background and Regulatory Policy Development Process
2. Industry Engagement with ICAO and its Environment Committee (CAEP)
3. nvPM
4. NOx
5. CO2

Sincerely,

Peter A. Pagano
 Director, Environment
 The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

Appointment

From: Hengst, Benjamin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C414E2BF04A246BB987D88498EEFF06-HENGST, BENJAMIN]
Sent: 9/18/2018 1:16:30 PM
To: Benjamin Hengst [Hengst.Benjamin@epa.gov]
Subject: FW: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)
Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20
Location: WJC - N 5400 + Video with AA + **Ex. 6 Personal Privacy (PP)**
Start: 9/20/2018 2:30:00 PM
End: 9/20/2018 3:15:00 PM
Show Time As: Tentative

-----Original Appointment-----

From: Rakosnik, Delaney **On Behalf Of** Wehrum, Bill
Sent: Monday, July 30, 2018 3:51 PM
To: Wehrum, Bill; Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David
Subject: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)
When: Thursday, September 20, 2018 10:30 AM-11:15 AM (UTC-05:00) Eastern Time (US & Canada).
Where: WJC - N 5400 + Video with AA + **Ex. 6 Personal Privacy (PP)**

TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



RE: Request for
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- Boeing: Ted Austell, Pete Pagano, John Moloney, Dan Allyn, Sean Newsum
- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Message

From: Rakosnik, Delaney [rakosnik.delaney@epa.gov]
Sent: 7/23/2018 7:55:03 PM
To: Pagano (US), Peter A [peter.a.pagano@boeing.com]
CC: Lewis, Josh [Lewis.Josh@epa.gov]; Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Atkinson, Emily [Atkinson.Emily@epa.gov]
Subject: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Hi Peter,

Thanks for your note. We will review and get back to you shortly.

Many thanks,

Delaney Rakosnik
 Staff Assistant
 Immediate Office of the Assistant Administrator
 Office of Air and Radiation, USEPA
 Room 5406A, 1200 Pennsylvania Avenue NW
 Washington, DC 20460
 Voice: 202-564-0935
 Email: rakosnik.delaney@epa.gov

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Monday, July 23, 2018 3:17 PM
To: Rakosnik, Delaney <rakosnik.delaney@epa.gov>
Cc: Lewis, Josh <Lewis.Josh@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

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The purpose of this message is to request a meeting with Assistant Administrator Wehrum to discuss aircraft emissions issues that are within the jurisdiction of the International Civil Aviation Organization's (ICAO) Environment Committee. OTAQ staff are actively engaged in policy formulation at ICAO as well as in developing domestic implementing regulations. Meeting participants would include representatives from Boeing; General Electric; and the Aerospace Industries Association. Attached below is a draft agenda which includes specific discussion topics. We are requesting Sept 19 or 20 as potential meeting dates because out of town participants for both companies will already be in DC for an industry meeting earlier in the week. We will work with you to find a convenient time that works for Mr Wehrum on either of those days. You should know that I have already provided background regarding this request to OTAQ (Ben Hengst). Thank you in advance for your assistance and please let me know if any additional information would be helpful to you.

Draft Agenda

1. ICAO Background and Regulatory Policy Development Process
2. Industry Engagement with ICAO and its Environment Committee (CAEP)
3. nvPM
4. NOx
5. CO2

Sincerely,

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

Message

From: Pagano (US), Peter A [peter.a.pagano@boeing.com]
Sent: 7/17/2018 12:10:13 PM
To: Hengst, Benjamin [Hengst.Benjamin@epa.gov]
Subject: RE: Meeting request with Bill Wehrum - Sept 19 or 20 - lets discuss

Cant do 2...let's stay with 11...talk to you then. Thnx

Peter A. Pagano
 Director, Environment
 The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

From: Hengst, Benjamin [mailto:Hengst.Benjamin@epa.gov]
Sent: Tuesday, July 17, 2018 8:06 AM
To: Pagano (US), Peter A <peter.a.pagano@boeing.com>
Subject: Re: Meeting request with Bill Wehrum - Sept 19 or 20 - lets discuss

Can't do 11:30 Could you do 2?

On Jul 17, 2018, at 7:49 AM, Pagano (US), Peter A <peter.a.pagano@boeing.com> wrote:

Friday at 11:30 is better but I can make 11 work if needed...let me know your preference....thnx

Peter A. Pagano
 Director, Environment
 The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

From: Hengst, Benjamin [mailto:Hengst.Benjamin@epa.gov]
Sent: Monday, July 16, 2018 5:33 PM
To: Pagano (US), Peter A <peter.a.pagano@boeing.com>
Subject: Re: Meeting request with Bill Wehrum - Sept 19 or 20 - lets discuss

Got it. Do you have time later this week for a chat? Friday at 11 work?

On Jul 16, 2018, at 11:44 AM, Pagano (US), Peter A <peter.a.pagano@boeing.com> wrote:

Ben

Hope you had a good weekend. Just left you a voicemail in followup to our discussion a while back about another meeting with Bill to discuss broader ICAO issues...attached below is a draft agenda...this discussion would be a bit more technical than the last one so both Boeing and GE plan to include additional staff who work on ICAO issues throughout the year... Sept 19 and 20 work for our out of town folks as they will be here for an industry meeting earlier in the week...let's discuss when you have a chance...thanks for your help with this.

Draft Agenda
 Meeting with Aerospace Industries Association, Boeing and GE with Bill Wehrum, EPA

1. ICAO Background and Regulatory Policy Development Process
2. Industry Engagement with ICAO and its Environment Committee (CAEP)
3. nvPM
4. NOx
5. CO2

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

Appointment

From: Wehrum, Bill [Wehrum.Bill@epa.gov]
Sent: 9/18/2018 1:16:31 PM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]
Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)
Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20
Location: WJC - N 5400 + Video with AA Ex. 6 Personal Privacy (PP)
Start: 9/20/2018 2:30:00 PM
End: 9/20/2018 3:15:00 PM
Show Time As: Busy

Required Attendees: Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David
Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Bill Wehrum did not attend this meeting

TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



RE: Request for
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- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Appointment

From: Rakosnik, Delaney [Wehrum.Bill@epa.gov]
Sent: 7/30/2018 8:25:24 PM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]

Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)

Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20

Location: WJC - N 5400 + Video with AA + Ex. 6

Start: 9/20/2018 2:30:00 PM

End: 9/20/2018 3:15:00 PM

Show Time As: Busy

Required Attendees: Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David
Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Message

From: Manning, Bryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9507F60B9C47448A88DD5D270BFC2DD4-MANNING, BRYAN]
Sent: 4/9/2019 3:05:36 PM
To: Yen, David [Yen.David@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Mueller, John [mueller.john@epa.gov]
Subject: FW - Control FYI: AX-19-000-3278 (Boeing Letter to Wheeler on 777X)
Attachments: AX-19-000-3278 Correspondence fyi.pdf

FYI, see the attachment from Boeing on the 777X. Thanks. Bryan

Bryan Manning
U.S. EPA Office of Transportation and Air Quality
Large Marine and Aviation Center
2000 Traverwood Drive
Ann Arbor, MI 48105
(ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Scharich, Joanne
Sent: Friday, April 05, 2019 3:21 PM
To: Samulski, Michael <samulski.michael@epa.gov>; Manning, Bryan <manning.bryan@epa.gov>
Cc: Paff, Patricia <paff.patricia@epa.gov>
Subject: Control FYI: AX-19-000-3278

Mike and Bryan:

The attached correspondence is an FYI Control. No further action is necessary.

Joanne Scharich
Communications Coordinator
Senior Service America, Inc.
Supporting the Office of Transportation and Air Quality, Assessment and Standards Division
U.S. Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, MI 48105
(734) 214-4509

Wed Mar 06 09:37:38 EST 2019
"Hope, Brian" <Hope.Brian@epa.gov>
FW: Status of Boeing 777X
To: "CMS.OEX" <cms.oex@epa.gov>

Reading file

From: Pagano (US), Peter A <peter.a.pagano@boeing.com>
Sent: Tuesday, March 05, 2019 5:11 PM
To: Wheeler, Andrew <wheeler.andrew@epa.gov>
Subject: Status of Boeing 777X

Andrew

Congratulations on your confirmation by the Senate to be the 15th Administrator of the EPA. I just wanted to follow up on our conversation in December regarding keeping you apprised of the status of the development of one of Boeing’s newest airplanes the 777X. You will recall that during your visit to Everett, WA in the Fall you saw the first set of new wings that were to be mounted on the first-flight test aircraft. The next milestone for this aircraft will be on March 13 when the airplane will officially debut to the world with a rollout event in Everett. Featuring new engines and an all-new composite wing, the twin-aisle 777X family will feature two members: the 777-8, which will carry 350-375 passengers, and the 777-9, which will carry 400-425 passengers. First flight is scheduled for later this year and first delivery in 2020.

We wish you all the best in your new position and please let us know if we can be of assistance during your tenure.

Sincerely,

Peter A. Pagano

Director, Environment

The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

The content image001.jpg of type has been blocked.

Message

From: Manning, Bryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9507F60B9C47448A88DD5D270BFC2DD4-MANNING, BRYAN]
Sent: 4/8/2019 3:53:54 PM
To: Leggett, Cullen [Leggett.Cullen@epa.gov]
Subject: FW: Materials from Dec 2018 meeting
Attachments: CO2_Cert_Timeline_EPA_dec717.pdf; Boeing Development Program Updates - EPA Dec 2017 final.pdf

Hi Cullen,

Attached are the materials from the December 7, 2018 Boeing/GE meeting. These materials do not shed any light on the 6 options they analyzed. Yet, I wanted to make sure you had this information (just in case it was helpful in some manner).

Thanks,

Bryan

Bryan Manning
 U.S. EPA Office of Transportation and Air Quality
 Large Marine and Aviation Center
 2000 Traverwood Drive
 Ann Arbor, MI 48105
 (ph) 734-214-4832 (fax) 734-214-4816
manning.bryan@epa.gov

From: Samulski, Michael
Sent: Monday, April 08, 2019 11:32 AM
To: Manning, Bryan <manning.bryan@epa.gov>
Subject: FW: thanks again

Here's the materials they used for the Dec 7 meeting

Michael Samulski
 U.S. Environmental Protection Agency
 Office of Transportation and Air Quality
 Director, Large Marine and Aviation Center
 1 (734) 214-4532
samulski.michael@epa.gov

From: Pagano, Peter A <peter.a.pagano@boeing.com>
Sent: Friday, January 05, 2018 2:42 PM
To: Charmley, William <charmley.william@epa.gov>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>
Subject: RE: thanks again

Thanks Bill.

Here's the presentations we used.

Please note that the attachments and its contents have been marked as Confidential Business Information so please handle accordingly.

Let me know if you have questions or need any other information to help prepare for your discussions this month.

All the best,

Peter A. Pagano
Director, Environment
The Boeing Company
703-414-6486
Email: peter.a.pagano@boeing.com

From: Charmley, William [<mailto:charmley.william@epa.gov>]
Sent: Friday, January 05, 2018 12:00 PM
To: Pagano, Peter A <peter.a.pagano@boeing.com>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>
Subject: RE: thanks again

Dear Pete –

Happy New Year.

Before our pre-brief with Bill Wehrum to get him prepared for the Boeing meeting, we are first meeting with our Office Director, Chris Grundler, which we are doing next week.

I wanted to be prepared for that meeting, and it would be helpful if you could send us the Boeing material from our December meeting.

If you could do that in the next few days I would appreciate it.

Best regards,

Bill

From: Pagano, Peter A [<mailto:peter.a.pagano@boeing.com>]
Sent: Friday, December 22, 2017 11:27 AM
To: Charmley, William <charmley.william@epa.gov>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>
Subject: Re: thanks again

Hi Bill

Our meeting with Bill is Jan 23rd. I will send materials when I am back in the office.

Sent from my BlackBerry 10 smartphone.

From: Charmley, William
Sent: Friday, December 22, 2017 5:12 AM

To: Pagano, Peter A
Cc: Hengst, Benjamin; Samulski, Michael
Subject: RE: thanks again

Dear Pete

I was out of the office Dec 11, so sorry for the late response.

Thanks again to you and the Boeing team and your colleagues from GE for coming to Ann Arbor for the meeting with us and Ralph from FAA. The discussion was very useful for us, and really helped me to understand the future timeline that Boeing needs to work towards for the CO2 certification process. If you can send the material that Boeing presented that would be great, as it will help us in communicating to our leadership some of Boeing's key messages.

Following our December 7 meeting with Boeing/GE, we put in a request to brief Assistant Administrator Wehrum, both to bring him up to speed on the CO2 aircraft issue and our rulemaking, and to prepare him for a future meeting with Boeing. Our pre-brief with the AA has been scheduled for January 17.

Have you received a date for a meeting with AA Wehrum? If yes, please let us know, and if it's not after January 17, we will ask to have our pre-brief moved up.

I hope you have a great holiday break.

Best regards,
Bill

From: Pagano, Peter A [<mailto:peter.a.pagano@boeing.com>]
Sent: Monday, December 11, 2017 12:35 PM
To: Charmley, William <charmley.william@epa.gov>
Subject: thanks again

Bill

Hope you had a good weekend. Thanks again for you and your team taking so much time on Thursday to meet with us and GE to discuss how we can move forward together on a number of issues. I will be sending you the materials we used in a separate message. In the meantime don't hesitate to contact me with any questions or if you need any additional information on anything we raised.

All the best,

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6

Email: peter.a.pagano@boeing.com

Appointment

From: Rakosnik, Delaney [Wehrum.Bill@epa.gov]
Sent: 7/30/2018 8:25:24 PM
To: Wehrum, Bill [Wehrum.Bill@epa.gov]; Grundler, Christopher [grundler.christopher@epa.gov]; Charmley, William [charmley.william@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]; Thrift, Mike [thrift.mike@epa.gov]; Orlin, David [Orlin.David@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]; Stevens, JeffreyA [Stevens.JeffreyA@epa.gov]; Yen, David [Yen.David@epa.gov]
CC: Hengst, Benjamin [Hengst.Benjamin@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Woods, Clint [woods.clint@epa.gov]
Subject: Delegated to Clint Woods: Meeting with Boeing, General Electric & Aerospace Industries Association re: aircraft emission issues (confirmed)
Attachments: RE: Request for Meeting with Assistant Administrator Bill Wehrum - Sept 19 or 20
Location: WJC - N 5400 + Video with AA + Ex. 6
Start: 9/20/2018 2:30:00 PM
End: 9/20/2018 3:15:00 PM
Show Time As: Busy

Required Attendees: Grundler, Christopher; Charmley, William; Samulski, Michael; Manning, Bryan; Leggett, Cullen; Mueller, John; Thrift, Mike; Orlin, David; Burch, Julia; Giannelli, Bob; Maeroff, Bruce; Stevens, JeffreyA; Yen, David
Optional Attendees: Benjamin Hengst; Schwab, Justin; Woods, Clint

Bill Wehrum did not attend this meeting

TO: Bill Wehrum, Chris Grundler, Bill Charmley, Mike Samulski, Bryan Manning, Cullen Leggett, John Mueller, Mike Thrift, David Orlin, Julia Burch, Bob Giannelli, Bruce Maeroff, Jeffery Stevens, David Yen



RE: Request for
Meeting with Assi...

Meeting participants (in person):

- Aerospace Industries Association: Leslie Riegle and David Hyde
- Boeing: Ted Austell, Pete Pagano, John Moloney, Dan Allyn, Sean Newsum
- General Electric: Roger Martella, Neal Kemkar, Mike Fitzpatrick, Muni Majjigi, Joe Zelina

Message

From: Samulski, Michael [samulski.michael@epa.gov]
Sent: 7/17/2018 12:54:17 PM
To: Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Mueller, John [mueller.john@epa.gov]
Subject: FW: Meeting request with Bill Wehrum - Sept 19 or 20 - lets discuss

Here's the email I mentioned. We'll want to get to Bill C sooner rather than later on NOx.

Thanks,

Mike

Michael Samulski
 U.S. Environmental Protection Agency
 Office of Transportation and Air Quality
 Director, Large Marine and Aviation Center
 1 (734) 214-4532
 samulski.michael@epa.gov

From: Hengst, Benjamin
Sent: Tuesday, July 17, 2018 8:14 AM
To: Charmley, William <charmley.william@epa.gov>; Samulski, Michael <samulski.michael@epa.gov>
Cc: Burch, Julia <Burch.Julia@epa.gov>
Subject: Fwd: Meeting request with Bill Wehrum - Sept 19 or 20 - lets discuss

Bill, Mike — see below. I'm supposed to chat with Pete briefly on Friday.

Begin forwarded message:

From: "Pagano (US), Peter A" <peter.a.pagano@boeing.com>
Date: July 16, 2018 at 11:43:52 AM EDT
To: "Hengst.benjamin@Epa.gov" <Hengst.benjamin@Epa.gov>
Subject: Meeting request with Bill Wehrum - Sept 19 or 20 - lets discuss

Ben

Hope you had a good weekend. Just left you a voicemail in followup to our discussion a while back about another meeting with Bill to discuss broader ICAO issues...attached below is a draft agenda...this discussion would be a bit more technical than the last one so both Boeing and GE plan to include additional staff who work on ICAO issues throughout the year... Sept 19 and 20 work for our out of town folks as they will be here for an industry meeting earlier in the week...let's discuss when you have a chance...thanks for your help with this.

Draft Agenda

Meeting with Aerospace Industries Association, Boeing and GE with Bill Wehrum, EPA

1. ICAO Background and Regulatory Policy Development Process
2. Industry Engagement with ICAO and its Environment Committee (CAEP)
3. nvPM

4. NOx
5. CO2

Peter A. Pagano
Director, Environment
The Boeing Company

Ex. 6 Personal Privacy (PP)

Email: peter.a.pagano@boeing.com

Message

From: Leggett, Cullen [Leggett.Cullen@epa.gov]
Sent: 9/4/2018 5:33:13 PM
To: Manning, Bryan [manning.bryan@epa.gov]; Mueller, John [mueller.john@epa.gov]; Samulski, Michael [samulski.michael@epa.gov]; Burch, Julia [Burch.Julia@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]
Subject: DRAFT - FR2 Stakeholder Email Blast
Attachments: Email Stakeholder List for Blast email Oct 17 2017.xlsx

<!--[if lte mso 15 || CheckWebRef]-->

Leggett, Cullen has shared a OneDrive for Business file with you. To view it, click the link below.



FR2 Stakeholder Email Blast 9-4-18.docx

<!--[endif]-->

Bryan,

Attached is a draft email blast to stakeholders. Do you have any comments? I have also attached a copy of the email list we sent it to initially.

Cullen

Message

From: Charmley, William [charmley.william@epa.gov]
Sent: 9/20/2018 3:42:59 PM
To: Samulski, Michael [samulski.michael@epa.gov]; Manning, Bryan [manning.bryan@epa.gov]; Leggett, Cullen [Leggett.Cullen@epa.gov]; Giannelli, Bob [Giannelli.Bob@epa.gov]; Mueller, John [mueller.john@epa.gov]; Maeroff, Bruce [Maeroff.Bruce@epa.gov]
Subject: FW: Final slides PDF for today
Attachments: AIA-Boeing-GE EPA ICAO Slides Final 092018.pdf

From: Pagano (US), Peter A [mailto:peter.a.pagano@boeing.com]
Sent: Thursday, September 20, 2018 10:14 AM
To: Charmley, William <charmley.william@epa.gov>
Subject: Fwd: Final slides PDF for today

Bill
FYI. Slides for meeting. Talk soon.
Pete

Sent from my iPhone

Begin forwarded message: